

2019

Annual Report

PRESCRIPTION DRUG MONITORING PROGRAM



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Update from the Program

In 2019, the Arkansas Department of Health was awarded a Centers for Disease Control and Prevention (CDC): Overdose Data to Action grant. The CDC grant will fund many projects and programs over the duration of the 3-year grant period with funds specific to the Arkansas Prescription Drug Monitoring Program (AR PDMP). The funding from the CDC grant will help with the running costs associated with the program as well as a statewide integration initiative. The AR PDMP web portal can be integrated into electronic health records (EHRs), pharmacy dispensing software (PDS) and health information exchanges (HIEs). With this grant the AR PDMP will facilitate and fund a statewide integration project over the next three years integrating into all EHRs, PDS and HIEs across Arkansas. This enhancement will increase the speed and ease at which a healthcare provider can utilize the AR PDMP.

Also, in June 2019 the AR PDMP welcomed a new epidemiologist, Priya Kakkar to the AR PDMP team. She has over 20 years of experience with data and statistical analysis. She has a Master of Arts in Gerontology, Master's in Health Services Administration and a Diploma in Pharmacy. Priya's focus is working on statistical analyses on the data reported to the AR PDMP for the quarterly reports, annual reports and presentations and assisting in the compilation and release of ADH Science Advisory Committee approved de-identified data requests.

Over this next year, the AR PDMP hopes to see even more helpful enhancements for prescribers, pharmacies, professional boards and law enforcement in an effort to decrease misuse and abuse of controlled substances in the state.

Arkansas PDMP Background

In 2011, Act 304 enlisted the Arkansas Department of Health (ADH) to establish a Prescription Drug Monitoring Program (PDMP). The goal of this legislation was to: enhance patient care; help curtail the misuse and abuse of controlled substances; assist in combating the illegal trade in and diversion of controlled substances; and make prescription information available to practitioners, law enforcement, professional boards and other authorized users.

In 2013, the PDMP began accepting dispensed prescription information from outpatient pharmacies; however, medications administered while in hospitals or in clinics are exempt from reporting. Mail order pharmacies that ship prescriptions into Arkansas *are* required to report to the PDMP, however. Healthcare providers across the state are able to run patient reports that identify all the controlled medications dispensed at these pharmacies. Professional boards and law enforcement are able to utilize the PDMP data in their investigation of prescribers, dispensers and patients to help identify and decrease the misuse and abuse of controlled medications.

In 2015, legislation was passed, allowing all prescribers and pharmacists to each assign a delegate to assess the PDMP on their behalf. A delegate is an agent or employee of the prescriber or pharmacist that has been granted access to the PDMP in order to run patient reports for the supervising prescriber or pharmacist, thus increasing efficiency.

In 2017, Act 820 was signed into law that mandated prescriber usage of the PDMP. The law states that a prescriber must check the PDMP each time prior to prescribing a schedule II or schedule III opioid (i.e. hydrocodone, oxycodone, morphine, etc.) and the first time prescribing a benzodiazepine (i.e. alprazolam, diazepam, lorazepam, etc.). Exceptions to this rule are in the instances of hospice, nursing home, in-patient and emergent situations in an ambulance.

In the 2019 legislative session, the passing of Act 605 added the ability to share data with federal PDMPs. The Department of Defense established the Military Health System (MHS) PDMP and the sharing will allow authorized Arkansas users to see prescriptions filled on military bases and military prescribers to see prescriptions filled in Arkansas. Also, in 2019, Act 141 allows the Office of Medicaid Inspector General to access the PDMP as a part of their search for fraud, waste and abuse in the state.

PDMP Usage

Who's using the PDMP?

The PDMP allows access to many different users. Access to the PDMP system occurs through a secure website, which requires authorized users to log in with a password. User accounts are granted to physicians, pharmacists, dentists, medical residents, physician assistants, veterinarians, nurse practitioners, Medicaid officials, law enforcement, regulatory boards, the state medical examiner, and prescriber and pharmacist delegates. All users must be approved for access according to statutory requirements. The number of user accounts are constantly increasing due to many factors, such as mandatory usage, opioid prescribing, internal office policies, etc. By the end of 2019, the PDMP had 22,982 user accounts, which was an 15.76% increase from the 19,853 user accounts in 2018 (Table 1). There was an increase in accounts for every role type with the medical resident role with the highest percent increase of 59.09%.

Table 1: Number of Registered PDMP Accounts, Arkansas 2018-2019

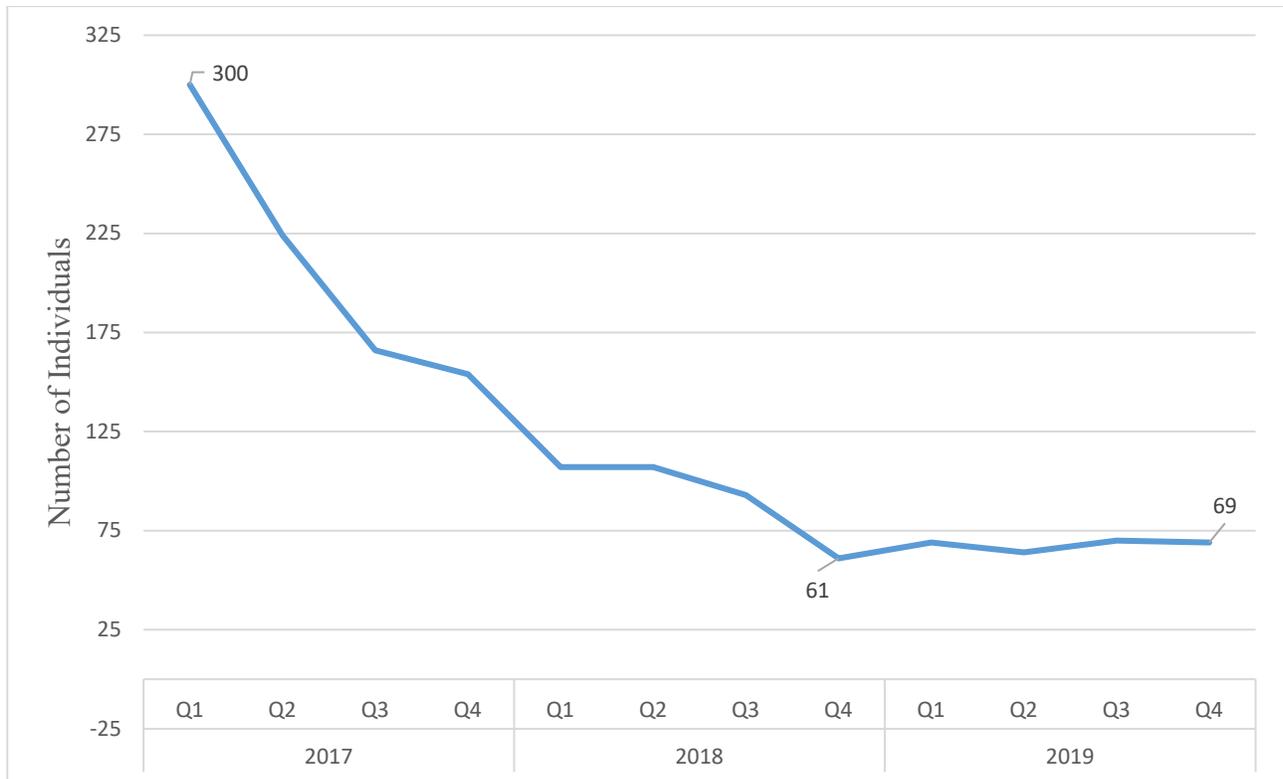
Role	2019	2018
Physician (MD/DO)	6,895	6,134
Pharmacist	3,340	3,117
Delegate	6,876	5,574
Adv. Practice Nurse	2,917	2,545
Dentist	1,357	1,265
Physician Assistant	465	401
Optometrist	155	115
Podiatrist	82	77
Law Enforcement	216	192
Veterinarian	141	95
Medical Resident	525	330
Licensing Board	7	5
Other	6	3
Total	22,982	19,853

Source: Arkansas Prescription Drug Monitoring Program

“Doctor Shopping”

In an effort to curb the misuse of controlled substances, the PDMP is able to alert prescribers and dispensers of patients who seem to be “doctor shopping.” “Doctor shopping” is defined as a patient going to multiple providers (prescribers and pharmacies) to obtain the same prescription or same class of medication. The PDMP flags patients who get multiple controlled prescriptions from multiple prescribers and fill the prescriptions at multiple pharmacies. In previous years, the threshold for this type of clinical alert was seven prescribers and seven pharmacies in 90 days. However, the number of doctor shopping patients identified was low, which resulted in lowering the threshold. The new threshold is met once a patient receives controlled prescriptions from five prescribers and five pharmacies in 90 days (5/5/90), at which point a clinical alert is sent out to all providers and dispensers with PDMP accounts the patient has had prescriptions with. Since quarter one (or Q1) of 2017, the state has seen a decrease in “doctor shopping” of the 5/5/90 threshold by at the most 80% (Figure 1). Starting in Q4 of 2018 through 2019, the number of individuals identified has maintained an average of 67 per quarter.

Figure 1: Individuals Seeing Five or More Prescribers and Five or More Pharmacies per Quarter, Arkansas 2017–2019

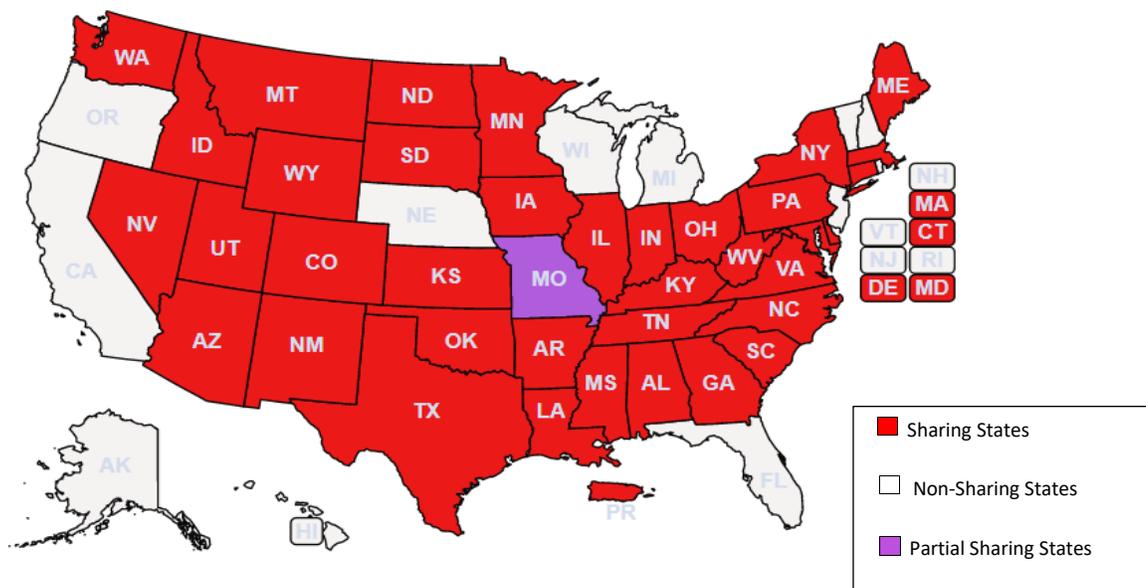


Source: Arkansas Prescription Drug Monitoring Program

Interstate Data Sharing

The opioid crisis does not stop at state borders. Soon after states began establishing PDMPs, authorities recognized the need to share information between states. PDMP data are shared between states through two different interfaces called PMP Interconnect and RxCheck. All the states in the country have a statewide PDMP with the exception of Missouri. The St. Louis County PDMP has 75 jurisdictions encompassing 80% of Missouri’s dispensers. Interstate data sharing allows prescribers, pharmacists and their delegates in Arkansas to see what controlled medications their patients have received in the 37 other states, Puerto Rico and the Military Health Systems PDMP with whom Arkansas currently shares data. The data sharing is bi-directional; Arkansas users are able to see information from other states and the other states are able to see prescription data in Arkansas. Sharing data across state lines prevents patients from “doctor shopping” from one state to another (Figure 2). Arkansas will continue to share data with other state and federal PDMPs as allowed by statute.

Figure 2: U.S Map of States that share PDMP Data with Arkansas, 2019



Source: Arkansas Prescription Drug Monitoring Program

Prescription Drug Use

Data by Drug Classes

The top selling controlled prescription drug type in 2019 in Arkansas filled by Arkansas residents written by Arkansas prescribers was opioids. Opioids are medications used primarily to treat pain. This class of drugs includes hydrocodone, oxycodone, morphine, and others. Over 2.9 million prescriptions were given to Arkansas residents in 2019. Between 2018 and 2019, the total number of opioid pills sold decreased from 186,424,459 to 151,051,036. This is a 19% decrease in total number of opioid pills sold.

The second top-selling controlled class was benzodiazepines (Benzo), such as Xanax and Valium, which can be prescribed for anxiety, panic attacks, insomnia, seizures, and muscle spasms. In 2019, over 1.5 million prescriptions to Arkansans equated to 71 million pills. Since 2018, the total number of Benzo prescriptions sold has decreased 12.6% from 1,739,022 to 1,519,875.

Ranking third in the top-selling list is the stimulant class with drugs such as Adderall and Ritalin. Stimulants are mostly indicated for attention deficit hyperactivity disorder (ADHD) and narcolepsy. In 2019, 887,276 prescriptions to Arkansans totaled 29 million pills (Table 2) which is a 16.4% increase in the number of stimulant prescriptions sold from 762,057 prescriptions in 2018.

Table 2: Top Selling Prescription Drugs by Class for AR Residents by AR Prescribers, Arkansas 2019

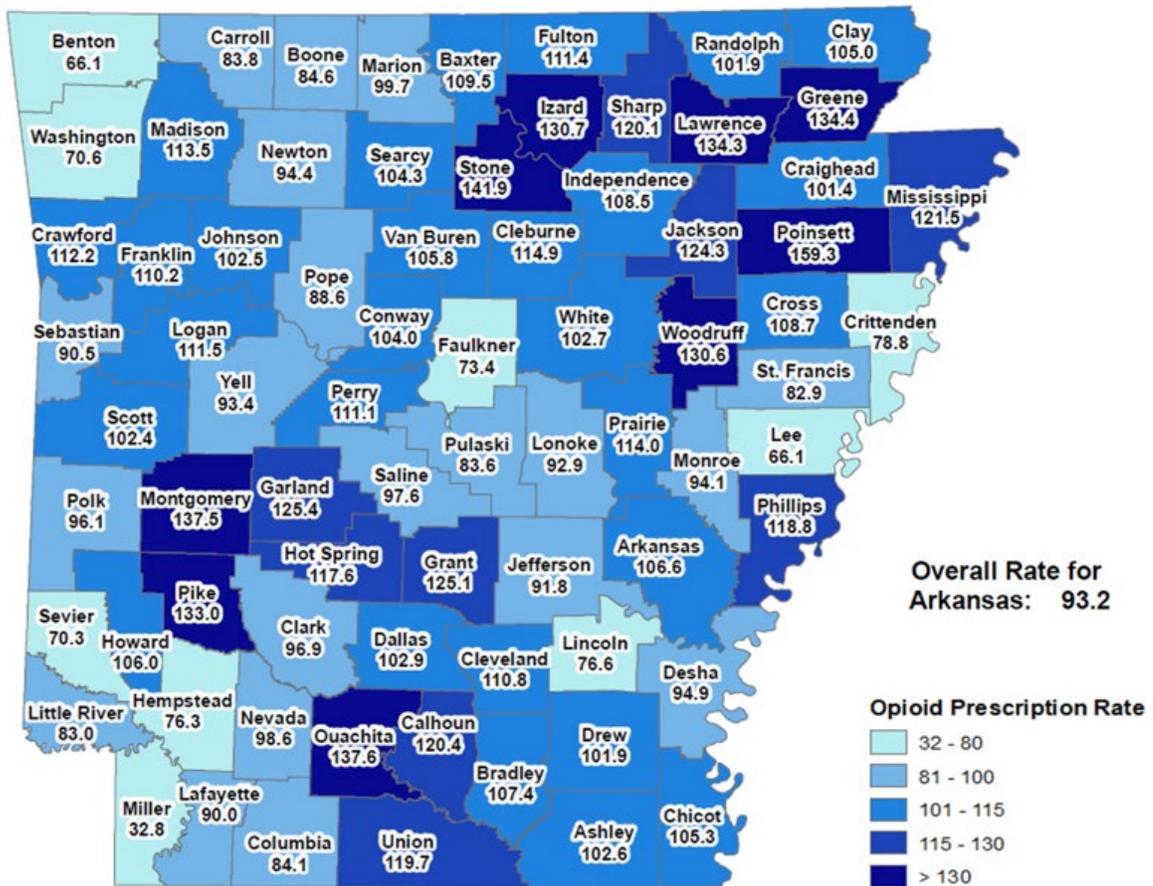
Drug Class	Number of Prescriptions	Number of Pills Sold
Opioid	2,905,577	151,051,036
Benzo	1,519,875	71,749,450
Stimulant	887,276	29,369,196
Zolpidem	441,925	12,562,231
Muscle Relaxant	41,062	2,537,427
Total	5,795,715	267,269,340

Source: Arkansas Prescription Drug Monitoring Program

County Rates for Opioids

For the state, the opioid prescription rate per 100 people in 2019 was 93.2. Even though this number has been decreasing in the past couple years, Arkansas is almost double the Centers for Disease Control’s (CDC) determined national average rate of 51.4 per 100 in 2018. Only one county in Arkansas was below the national average by the CDC calculation, Miller County at 32.8. The counties with the highest prescription rates are Poinsett (159.3), Stone (141.9), Ouachita (137.6) and Greene (134.4) (Figure 3). Counties are determined by the addresses of patients who received the prescription. Therefore, the map does not reflect the rates of prescriptions from providers in each county, but instead rates of prescriptions received by individuals in the county.

Figure 3: Opioid* Prescription Rates per 100 People per County Based on the Address of the Patient, Arkansas 2019**



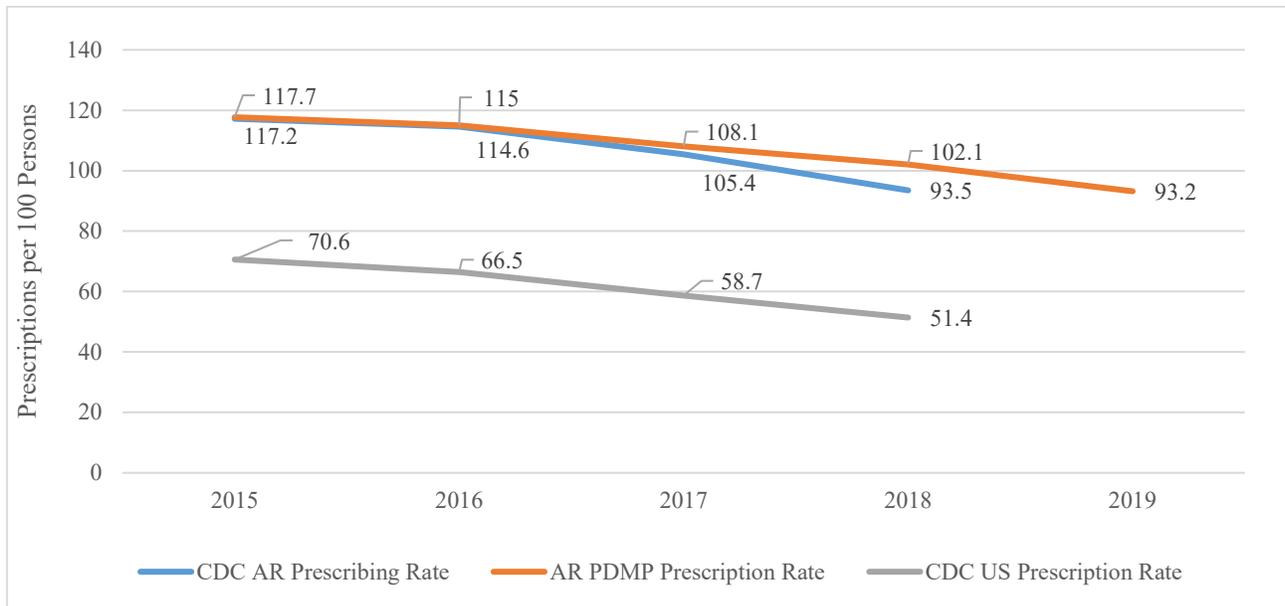
*Note: Does not include buprenorphine products
 **Note: Limited to prescriptions by Arkansas providers

Source: Arkansas Prescription Drug Monitoring Program

CDC vs. AR PDMP Rates

Both the Centers for Disease Control and Prevention (CDC) and the Arkansas Prescription Drug Monitoring Program (AR PDMP) track the opioid prescription rate per 100 people. The CDC Prescribing Rate is based on a sample of approximately 50,000 retail (non-hospital) pharmacies, which dispense nearly 90% of all retail prescriptions in the United States. For this database, a prescription is an initial or refill prescription dispensed at a retail pharmacy in the sample and paid for by commercial insurance, Medicaid, Medicare, or cash. The AR PDMP Prescribing Rate includes all opioids dispensed at any AR retail pharmacy prescribed by an AR prescriber for an AR resident for 2015, 2016, 2017, 2018 and 2019. The AR PDMP rate is more specific to Arkansans and accounts for all opioid prescriptions reported to the AR PDMP as compared to the CDC rate that is only a sample of the data (Figure 4).

Figure 4: Opioid* Prescription Rate per 100 People: CDC versus AR PDMP*** Rates, 2015-2019**



***excludes buprenorphine products**

****CDC Rate is a sample of approximately 50,000 retail (non-hospital) pharmacies, which dispense nearly 90% of all retail prescriptions in the United States**

***** AR PDMP Rate includes all opioids dispensed at any AR retail pharmacy prescribed by an AR prescriber for an AR resident**

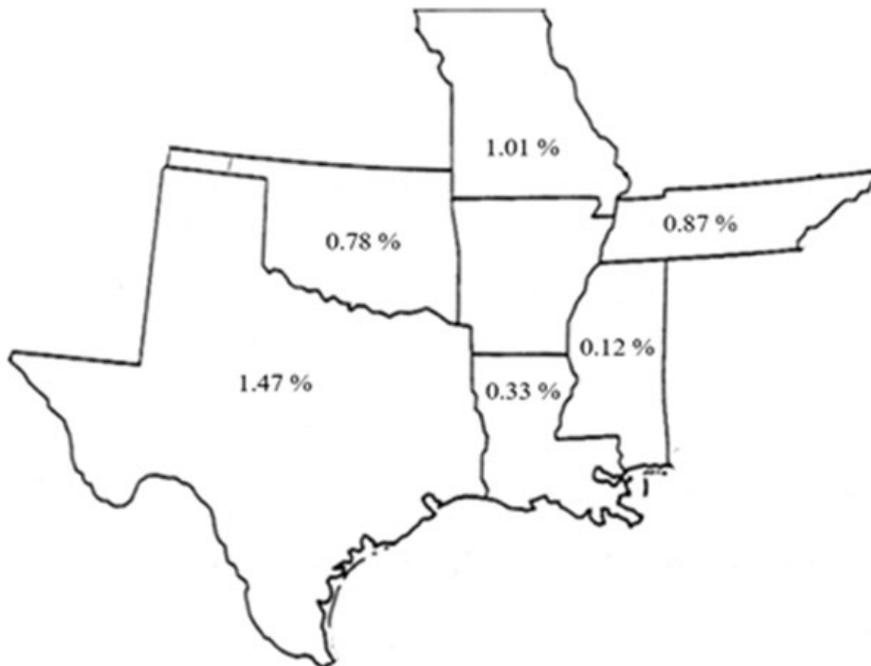
Source: Arkansas Prescription Drug Monitoring Program

Out-of-State Prescriptions

One question that is brought up on the controlled prescriptions dispensed in Arkansas is how many of the prescriptions are written by out of state prescribers. Based on the 2018 AR PDMP reported data, an analysis of the prescriptions written by out of state prescribers was conducted. In 2018, 4.36% of all controlled prescriptions were written by out of state prescribers. Out of state prescriptions for opioids was the most common at 2.55% of all controlled prescriptions followed by benzodiazepines at 1.03%.

In order to have a better understanding of the opioid prescriptions reported to the AR PDMP, an analysis was performed to identify the number of opioid prescriptions written by out of state prescribers compared to the overall number of opioid prescriptions. In 2018, 4.97% of all opioid prescriptions reported to the AR PDMP were from out of state prescribers. The top 5 states in which opioid prescriptions were written by out of state prescribers are Texas, Missouri, Tennessee, Missouri and Louisiana. Texas being the highest contributor at 1.47% of all opioid prescriptions reported to the AR PDMP (Figure 5).

Figure 5: Percentage of Opioid Prescriptions by Out of State Prescribers-Arkansas, 2018



Source: Arkansas Prescription Drug Monitoring Program

DATA 2000 Waivered Providers

In 2000, Congress passed the Drug Addiction Treatment Act (DATA) which permits providers to treat substance use disorders with controlled substances including buprenorphine for the treatment of opioid use disorder (OUD). A provider (physicians, nurse practitioners, physician assistants) is required to obtain a DATA 2000 waiver from the Drug Enforcement Agency (DEA) in order to treat OUD with buprenorphine. Initially, each provider is only allowed to have a patient load of 30 but is able to request an increase up to 275 patients.

The AR PDMP analyzed a list of 305 DATA Waivered Providers generated in October of 2019 for profession, patient load and AR PDMP Specialty Type. The majority of waived providers are physicians at 74% and nurse practitioners at 22%. Most waived providers have a patient load of 30 patients, 70% of the providers, while only 8% are waived for 275 patients (Table 3). The most common AR PDMP specialty for waived providers are Family Medicine at 25% and Psychiatry/Neurology at 25%. The specialty with the higher patient load of 100 and 275 is Psychiatry/Neurology at 6% and 2%, respectively.

Table 3: Breakdown of AR Waivered Providers by Profession and Patient Load-Arkansas, October 2019

Professional Type	Patient Load			Total
	30	100	275	
Physician	153	49	25	227
Nurse Practitioner	57	11	1	69
Physician Assistant	6	2	1	9
Total	216	62	27	305

Analysis conducted by: Dr. Corey Hayes
Source: Drug Enforcement Agency

Naloxone Dispensations

Naloxone is an opioid antagonist that is used to reverse an opioid overdose. Some common brand name products of naloxone are Narcan and Evzio. Naloxone is a non-controlled prescription medication that a healthcare provider can write a prescription for and be dispensed in a retail pharmacy. In 2017, Act 284 was passed that allowed for pharmacists to dispense naloxone through a standing order authorized by the Secretary of Health.

In 2016 the Centers for Disease Control and Prevention (CDC) issued guidelines for clinicians specifically for prescribing opioid for chronic pain. One of the recommendations is the co-prescribing of naloxone when there is an increased risk of overdose (i.e. history of overdose, history of substance use disorder, higher opioid doses of $\geq 50\text{MME/day}$). In order to compare the strengths of all opioids across the board, a conversion factor called the morphine milligram equivalent (MME) was established. The higher the MME of a prescription, the higher the risk of overdose.

To get a better understanding of how Arkansas healthcare providers are doing at co-prescribing naloxone with opioid prescriptions of $\geq 50\text{MME/day}$, an analysis was performed through the linkage of the All Payers Claims Data (APCD) consisting of healthcare data from a variety of payer sources reported to the Arkansas Center for Health Improvement and the AR PDMP data. Since naloxone is a non-controlled medication the dispensations from pharmacies is not captured by the AR PDMP but payers claims for naloxone are captured by the APCD.

The analysis looked at the linked APCD-PDMP data set from January 1, 2018 to June 30, 2018. The healthcare provider with the highest number of naloxone prescriptions was the physician listed on the state standing order, indicating that 29% of all the naloxone billed to insurance were dispensed under the state standing order (Table 4). Also, the product that is dispensed the most is Narcan Nasal Spray.

From this analysis, there were 292,180 high dose ($\geq 50\text{MME/day}$) opioid prescriptions dispensed and a total of 2,149 naloxone prescriptions billed to a third-party payer. From the linked APCD-PDMP data set, a total of 427 of the naloxone prescriptions were dispensed to a patient within 2 days of receiving a high dose opioid prescription. This is a 0.15% co-dispensing rate. This rate does not account for patients that already received a naloxone prescription prior to this analysis that could have been co-prescribed with a previous high dose opioid prescription.

Table 4: Top 3 Naloxone Prescriber by Specialty-Arkansas, January to June 2018

Prescriber Name	Prescriber Specialty	Naloxone Prescriptions	Percentage of Total
Standing Order Physician	N/A	623	29%
*Name Withheld	Pain Medicine	315	14.5%
*Name Withheld	Pain Medicine	161	7.5%

Analysis conducted by: Dr. Corey Hayes

Source: APCD-PDMP

**Name withheld due to confidentiality*

Problems Related to Drug Misuse

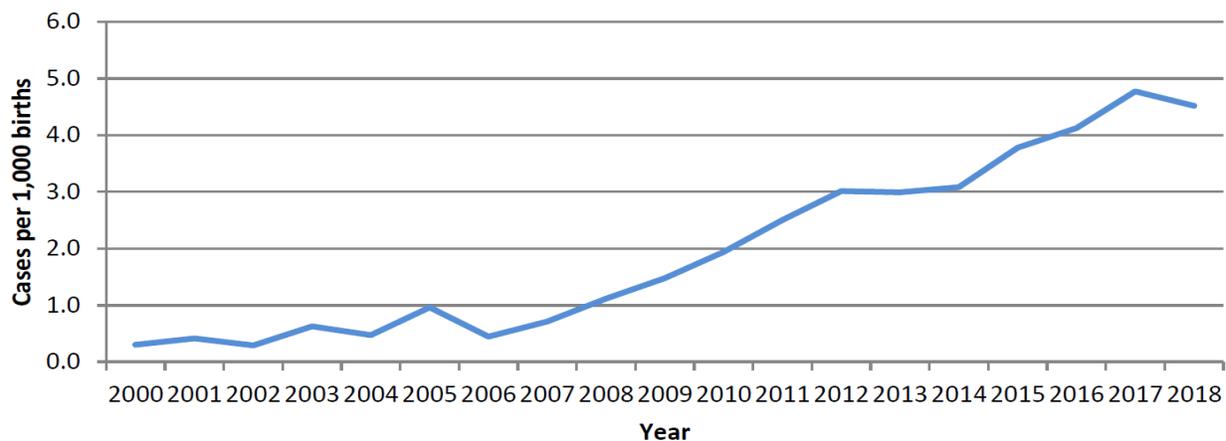
Neonatal Abstinence Syndrome

Neonatal Abstinence Syndrome (NAS) is a group of symptoms resulting from drug use during pregnancy.

Since 2000, the rate of NAS per 1,000 hospital births increased from 0.3 per 1,000 births to 4.5 per 1,000 births in 2018 (Figure 6). This is a decrease from the 2017 rate of 4.8 per 1,000 births. The last decrease in NAS rate was observed 12 years ago back in 2006.

The demographic breakdown of NAS cases in 2018 show the condition is more common among white than non-white Arkansans. Comparing the mother's insurance coverage, NAS rates for women with Medicaid were more than twice as high as women with other types of insurance. NAS rates in the northeast, northwest and southwest regions of Arkansas show some of the highest rates. ¹

Figure 6: Rate of Neonatal Abstinence Syndrome per 1,000 Births, Arkansas Residents, 2000-2018*



Analysis Conducted by: Dr. Mike Cima

Source: Hospital Discharge Data Systems, ADH

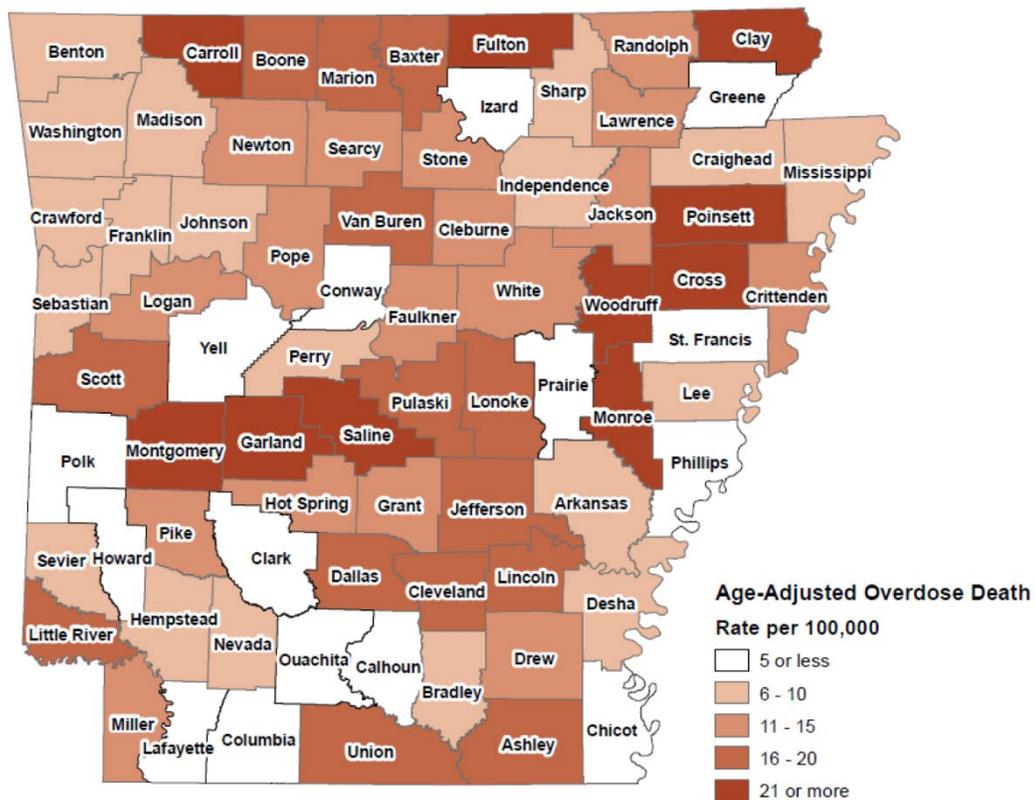
*Does not include births to Arkansas mothers occurring in out-of-state hospitals

¹ Neonatal Abstinence Syndrome in Arkansas 2000-2017. Arkansas Department of Health.

Overdose Death Rates

According to the Arkansas Department of Health Vital Statistics Section, provisional data based on death certificates indicate that 352 Arkansas residents died from a drug overdose in 2019. This number is a decrease from the 426 overdose deaths in 2018. The overdose death rates vary by county, with some of the higher-ranking counties found in north central, north west, central and west Arkansas (Figure 7). Counties are determined by the individual’s address of residence.

Figure 7: Age-Adjusted Overdose Death Rates per 100,000 People per County Based on the Individual’s Address-Arkansas, 2019*



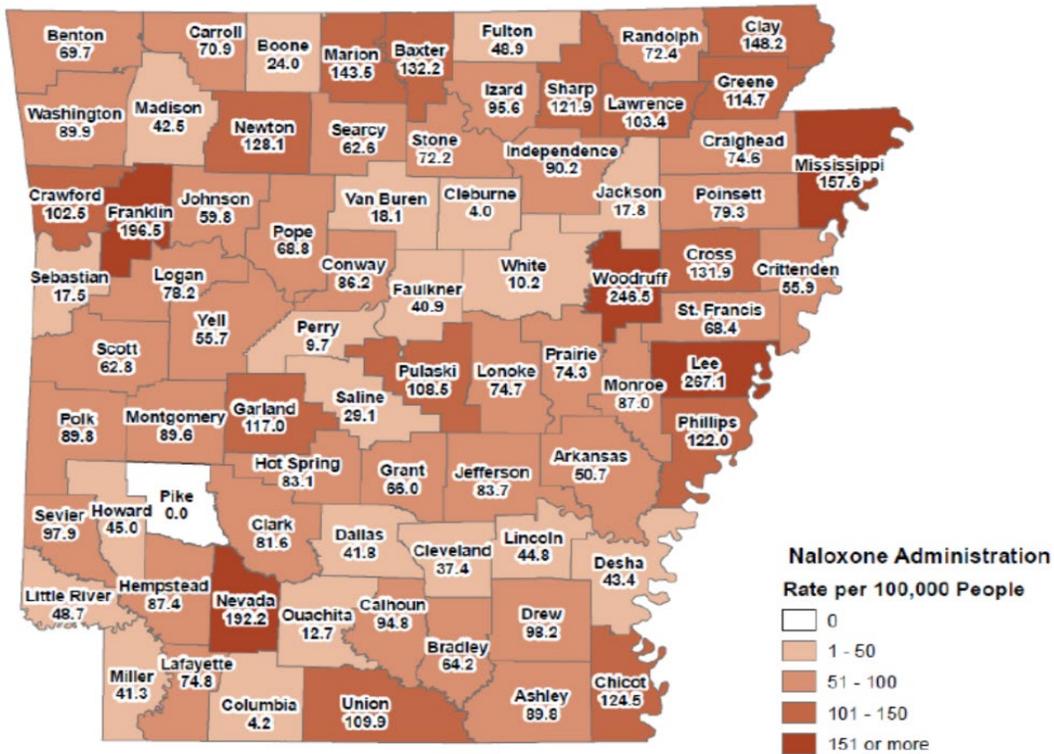
Source: Vital Statistics, ADH
*2019 data is provisional

EMS Naloxone Administration Rates

Emergency Medical Services (EMS) and other first responders are usually the first on scene to a suspected overdose. Across the state, EMS and first responders are trained and equipped to identify and administer the opioid overdose reversing agent called naloxone. Naloxone is administered to a patient with a suspected opioid overdose; however, the person may not have an opioid overdose. Therefore, just because naloxone is administered is not indicative of a confirmed opioid overdose. If a patient does not respond to the naloxone, then EMS can continue to assess the patient for other causes of distress.

EMS tracks the number of naloxone administrations reported to the Arkansas Department of Health EMS and Trauma Branch. In 2019, the counties with the highest rates of naloxone administrations per 100,000 people are Lee (267.1), Woodruff (246.5), Franklin (196.5) and Nevada (192.2) counties (Figure 8).

Figure 8: Naloxone Administration Rates per 100,000 People per county by EMS-Arkansas, 2019



Source: Emergency Medical Services and Trauma, ADH

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